

We claim:

1. A pyrolysis plant for refuse, comprising:

a screening device having an interior for receiving solid residues, a rod wound along a helical line and bounding said interior, and a longitudinal axis, said screening device rotatable about said longitudinal axis.

2. The pyrolysis plant according to claim 1, wherein said rod is constructed as a spiral with a plurality of turns.

3. The pyrolysis plant according to claim 1, wherein said rod is constructed as a spiral with approximately 4 to 10 turns.

4. The pyrolysis plant according to claim 1, wherein said rod is one of a number of rods having rod starts offset in terms of rotation.

5. The pyrolysis plant according to claim 4, wherein said rods have an angle of rotation smaller than 360° .

6. The pyrolysis plant according to claim 4, wherein said rods have an angle of rotation at most approximately equal to 180° .

7. The pyrolysis plant according to claim 1, wherein said wound rod forms an outer surface, and a rod element is disposed fixedly relative to said wound rod and substantially parallel to said outer surface.

8. The pyrolysis plant according to claim 7, wherein said rod element is wound along a helical line in opposition to said rod.

9. The pyrolysis plant according to claim 7, wherein said rod element forms an angle of approximately 90° with said rod.

10. The pyrolysis plant according to claim 7, wherein said rod element is one of a plurality of rod elements having starts offset in terms of rotation.

11. The pyrolysis plant according to claim 1, wherein said rod has a rod start and is fastened only at said rod start.

12. The pyrolysis plant according to claim 1, wherein said rod is flexible.

13. The pyrolysis plant according to claim 2, wherein said spiral has a downwardly curved spiral axis.

14. The pyrolysis plant according to claim 1, wherein said rod is metallic.

15. The pyrolysis plant according to claim 1, wherein said rod is a metallic round iron bar.

16. The pyrolysis plant according to claim 1, wherein said rod is a metallic tube.

17. The pyrolysis plant according to claim 1, including an aligning device for alignment of elongate solid fragments in a conveying direction, said aligning device disposed upstream of said rod and opening into said interior.

18. The pyrolysis plant according to claim 17, wherein said aligning device is a drum having a longitudinal axis, and said aligning device is rotatable about said longitudinal axis of said aligning device.

19. The pyrolysis plant according to claim 18, wherein said drum has a downstream end surface as seen in a conveying direction, and said rod is fastened to said downstream end surface.

20. The pyrolysis plant according to claim 18, wherein said drum has an end surface as seen in a conveying direction, and said rod is welded to said end surface.

21. The pyrolysis plant according to claim 18, including a coil disposed inside said drum.

22. The pyrolysis plant according to claim 18, including a multi-flight coil disposed inside said drum.

23. The pyrolysis plant according to claim 21, wherein said coil forms a closed circle as seen in a top view in the direction of said longitudinal axis of said drum.

24. The pyrolysis plant according to claim 1, including a low-temperature carbonization drum having a discharge side, said screening device connected to said discharge side of said low-temperature carbonization drum for screening pyrolysis residues obtained from said low-temperature carbonization drum.

25. The pyrolysis plant according to claim 2, wherein two of said turns of said spiral define a distance therebetween of approximately 100 to 300 mm.

26. The pyrolysis plant according to claim 2, wherein two of said turns of said spiral define a distance therebetween of 180 mm.

27. The pyrolysis plant according to claim 1, wherein said rod is one of a number of rods defining a distance therebetween of approximately 100 to 300 mm.

28. The pyrolysis plant according to claim 1, wherein said rod is one of a number of rods defining a distance therebetween of 180 mm.

29. The pyrolysis plant according to claim 1, wherein said interior bounded by said rod has a diameter of approximately 1.5 m and a length of approximately 0.5 to 1.5 m.

30. A method for screening solid residues from a pyrolysis plant for refuse, which comprises:

providing a screening device having a longitudinal axis, an interior and a rod wound along a helical line;

introducing residues into the interior of the screening device rotating about the longitudinal axis; and

conveying coarse residue constituents with the rod for separating the coarse residue constituents from pure residue constituents.

31. The method according to claim 30, which further comprises initially aligning the residues in a conveying direction in an aligning device and subsequently screening the residues with the rod.